

ABSTRACT

[0048] A billiard cue includes a shaft having a hollow bore extending for a predetermined distance from a first end of the shaft to reduce the tip end weight of the shaft. In one aspect, where the shaft is formed of a composite material consisting of fibers in a binder, such as carbon fibers in an epoxy resin, the bore forms an outer wall in the tip end of the shaft having a thickness between about 0.005 and about 0.05 inches. The shaft material has a modulus of elasticity of at least  $4.3 \times 10^6$  psi. The bore extending from the first end of the shaft, the thin wall thickness of the tip end of the shaft and the material forming the shaft combine to decrease the mass of the tip end of the shaft while maintaining substantially all of the stiffness of a conventional solid wood shaft formed of a hard maple to minimize buckling of the tip end of the shaft and thereby substantially decrease deflection of the cue ball from its intended path of movement along a path parallel to the stroke axis of the shaft. The tip end bore may be left hollow or filled with a light weight, non-structural material. The hollow bore is equally applicable to shafts formed of wood.